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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/524,906

02/17/2005

Junbiao Zhang

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02/23/2009

Robert D. Shedd

Thomson Licensing LLC

PO Box 5312

PRINCETON, NJ 08543-5312

EXAMINER

CZEKAJ, DAVID J

ART UNIT

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2621

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/524,906	<b>Applicant(s)</b> ZHANG ET AL.	
	<b>Examiner</b> DAVID CZEKAJ	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/17/05</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 15-30 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled “Clarification of ‘Processes’ under 35 U.S.C. 101”). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. It is unclear what performs, in electronic form, the decoding, generating, and adding steps recited in the method claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Linnartz et al. (2002/0150247), (hereinafter referred to as "Linnartz").

Regarding claim 1, Linnartz discloses an apparatus that relates to watermark embedding (Linnartz: paragraph 0001). This apparatus comprises "decoding a compressed encoded signal during which at least one piece of compressed domain information is generated" (Linnartz: figures 2-4; paragraph 0049, wherein the domain information is the picture type, quantization step, or quantization matrix) and "a watermark inserter for generating a watermark signal whose strength is derived from the piece of compressed domain information" (Linnartz: paragraph 0047).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz et al. (2002/0150247), (hereinafter referred to as "Linnartz").

Regarding claim 2, note the examiners rejection for claim 1, and in addition Linnartz discloses "an inverse quantizer, an inverse block transform, a motion compensator, and a summer" (Linnartz: paragraphs 0060-0062). Although not disclosed, it would have been obvious to include an entropy

decoder (Official Notice). Doing so would have been obvious in order to correctly receive video from a source.

3. Claims 3-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz et al. (2002/0150247), (hereinafter referred to as "Linnartz") in view of Wakasu (6259801).

Regarding claim 3, note the examiners rejection for claim 1, and in addition, claim 3 differs from claim 1 in that claim 3 further requires a pre-generated watermark signal. Wakasu teaches that prior art encoding systems have a low detectability factor when using watermarks (Wakasu: column 4, lines 40-49). To help alleviate this problem, Wakasu discloses "adding a pre-generated watermark to the signal" (Wakasu: column 5, lines 40-50). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the watermarks taught by Wakasu in order to obtain an apparatus that increases detectability of watermarks.

Regarding claim 4, note the examiners rejection for claim 2, and in addition, Wakasu discloses "storing a plurality of pre-generated watermarks" (Wakasu: column 5, lines 45-50, wherein the watermark table stores the watermarks).

Regarding claim 5, note the examiners rejection for claims 1-2.

Regarding claim 6, Linnartz discloses "the domain information is a count of the number of coded transform coefficients" (Linnartz: paragraphs 0049-0050,

wherein the values of the DCT coefficients would indicate the number of coefficients).

Regarding claim 7, Linnartz discloses "the domain information is provided by the inverse quantizer" (Linnartz: paragraph 0049-0050; 0059).

Regarding claim 8, Linnartz discloses "the domain information are values of non-DC coefficients" (Linnartz: paragraph 0050, wherein the values of the coefficients would indicate both AC and DC coefficients).

Regarding claim 9, Linnartz discloses "the domain information is provided by the summer" (Linnartz: paragraph 0061).

Regarding claim 10, although not disclosed, it would have been obvious to have the domain information be the absolute luminance DC values (Official Notice). Doing so would have been obvious in order to provide vital image information to the watermark inserter.

Regarding claim 11, Linnartz discloses "the watermark signal contains a unique identifier" (Linnartz: paragraph 0003, wherein the identifier is the copy status)"

Regarding claim 12, Linnartz discloses "the identifier includes information regarding a copyright license" (Linnartz: paragraph 0003).

Regarding claim 13, although not disclosed, it would have been obvious for the information to include a device specific indicator (Official Notice). Doing so would have been obvious in order to send the data to the correct processing system.

Regarding claim 14, Linnartz discloses “the signals are compressed using MPEG (Linnartz: paragraph 0005).

Regarding claim 15, note the examiners rejection for claims 1 and 3.

Regarding claim 16, note the examiners rejection for claim 1.

Regarding claim 17, note the examiners rejection for claims 5 and 6.

Regarding claims 18 and 21, although not disclosed, it would have been obvious for the domain information to be the slack or different in luminance DC values (Official Notice). Doing so would have been obvious in order to provide vital image information to the watermark inserter.

Regarding claim 19, note the examiners rejection for claims 7 and 8.

Regarding claim 20, note the examiners rejection for claim 10.

Regarding claim 22, Linnartz in view of Wakasu disclose “storing the watermark signals in a first memory and storing the reference pictures in a second memory unit, wherein adding the watermark includes retrieving the stored watermark signals from the first memory” (Linnartz: figure 2; Wakasu: column 5, lines 40-50).

Regarding claims 23-25, note the examiners rejection for claims 11-13.

Regarding claim 26, although not disclosed, it would have been obvious to apply a deblocking filter (Official Notice). Doing so would have been obvious in order to provide vital image information to the watermark inserter.

Regarding claim 27, note the examiners rejection for claims 1 and 22.

Regarding claims 28-30, note the examiners rejection for claims 11-13.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US-6647127	11-2003	Aoshima et al.
US-2002/0176496	12-2002	Tapson
US-7197073	03-2007	Furuta

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID CZEKAJ whose telephone number is (571)272-7327. The examiner can normally be reached on Mon-Thurs and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Dave Czekaj/  
Primary Examiner, Art Unit 2621